

**CULTURAL RESOURCES SURVEY OF THE
PRINCE TO LAKE MARION 115kV
TRANSMISSION LINE,
CLARENDON COUNTY, SOUTH CAROLINA**



CHICORA RESEARCH CONTRIBUTION 432

CULTURAL RESOURCES SURVEY OF THE PRINCE TO LAKE MARION 115kV TRANSMISSION LINE, CLARENDON COUNTY, SOUTH CAROLINA

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ABSTRACT

This study reports on an intensive cultural resources survey of an approximately 5.7 mile corridor that runs north-south in Clarendon County, South Carolina. The work was conducted to assist Central Electric Power Cooperative in complying with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The corridor is to be used by Central Electric Power Cooperative for the construction of a transmission line. The transmission line will connect to two existing substations, Prince and Lake Marion. The topography is undulating with drops in elevation at the various drainages throughout the corridor.

The proposed route will require the clearing of the corridor, followed by construction of the proposed transmission line. These activities have the potential to affect archaeological and historical sites that may be in the project corridor. For this study an area of potential effect (APE) 0.5 mile around the proposed transmission line was assumed.

An investigation of the archaeological site files at the S.C. Institute of Archaeology and Anthropology failed to identify any previously recorded sites in the project APE.

The S.C. Department of Archives and History GIS was consulted for any previously recorded sites. Again, no sites were found. However, Clarendon County has not had a comprehensive architectural survey. The State Historic Preservation Office did smaller surveys in 1977, 1978, 1980, and 1985, but no structures were found in the survey area.

The archaeological survey of the corridor incorporated shovel testing at 100-foot intervals

along the center line of the 75-foot right-of-way, which was marked by stakes. All shovel test fill was screened through ¼-inch mesh with a total of 300 shovel tests excavated along the corridor.

As a result of these investigations one site, 38CR129, was identified. This is a late nineteenth to twentieth century domestic site. It is recommended not eligible for the National Register because of its lack of integrity and inability to address significant research questions.

A survey of public roads within a 0.5 mile of the proposed undertaking was conducted in an effort to identify any architectural sites over 50 years old which also retained their integrity. No such sites were found.

Finally, it is possible that archaeological remains may be encountered in the project area during clearing activities. Crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Tommy L. Jackson of Central Electric Power Cooperative. The work was conducted to assist Central Electric Power Cooperative comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of a 5.7 mile corridor to be used for a 115kV transmission line in western Clarendon County (Figure 1). The project runs approximately north-south between two existing substations.

The proposed corridor, as previously mentioned, is intended to be used as a transmission line. Landscape alteration, primarily clearing and construction, including erection of poles, will damage the ground surface and any archaeological resources that may be present in the survey area.

Construction and maintenance of the transmission line may also have an impact on historic resources in the project area. The project will not directly affect any historic structures (since none are located on the survey corridor), but the completed facility may detract from the visual integrity of historic properties, creating what many consider discordant surroundings. As a result, this architectural survey uses an area of potential effect (APE) about 0.5 mile radius around the proposed survey corridor.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development of this portion of Clarendon County.

We were requested by Mr. Tommy L. Jackson of Central Electric Power Cooperative to conduct a cultural resources survey for the project

on September 28, 2005.

These investigations incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology. As a result of that work, no archaeological sites were found within a 0.5 mile area of potential effect (APE).

The South Carolina Department of Archives and History GIS was consulted to check for any NRHP buildings, districts, structures, sites, or objects in the study area. No such sites were found.

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The archaeological survey was conducted from October 4-6 by Ms. Julie Poppell and Ms. Nicole Southerland under the direction of Dr. Michael Trinkley and revealed one archaeological site 38CR129. The site, a late nineteenth to early twentieth century domestic site, is recommended not eligible for the National Register of Historic Places.

The architectural survey of the APE, designed to identify any structures over 50 years in age that retain their integrity and were potentially eligible for the National Register of Historic Places revealed no such structures.

Report production was conducted at Chicora's laboratories in Columbia, South Carolina from October 7-11, 2005. The only photographic materials associated with this project are color prints, which are not archival. Chicora Foundation retains the negatives and prints for these photographs.

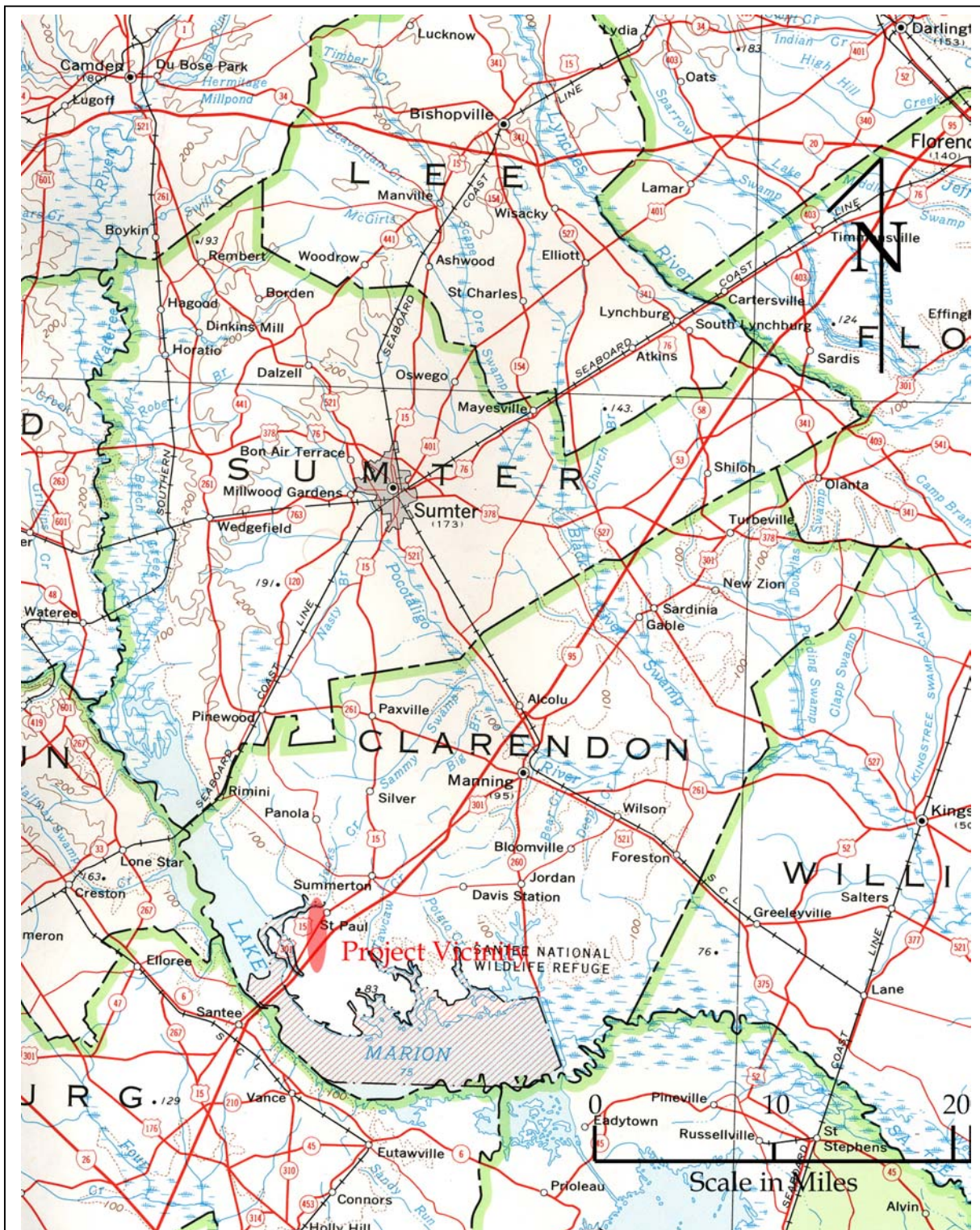


Figure 1. Project vicinity in Clarendon County (basemap is USGS South Carolina 1:500,000).

The figure is a topographic map of the St. Paul and Summerton area. A red outline delineates the 'Project Corridor'. The map features contour lines indicating elevation, with green shading representing lower elevations and brown lines for higher elevations. Water bodies are shown in blue, including Jacks Creek and Carter Bay. A north arrow is located in the upper left quadrant. A scale bar at the bottom left indicates distances of 0, 4000, and 8000 feet. The text 'Scale in Feet' is written below the scale bar. The map also shows various roads, trails, and geographical features like 'Carter Bay' and 'Jacks Creek'.

NATURAL ENVIRONMENT

Physiography and Geology

Clarendon County is situated in the Middle Coastal Plain of South Carolina, south of the Fall Line. Elevations in the Middle Coastal Plain range from 220 to 350 feet above mean sea level (AMSL), with the topography being gently rolling. As Kovacik and Winberry (1987:20) observe, it can be very difficult to distinguish the Middle Coastal Plain from that of the Sand Hills to the north or even the lower Piedmont. You find the flatter, and almost featureless Coastal Plain topography further to the south and southeast, south of the Citronelle Escarpment (Orangeburg Scarp).

The Carolina Sand Hills to the north are an area of discontinuous hilly topography characterized by rounded hills with gentle slopes, moderate relief, and sandy soils. Although technically part of the Coastal Plain geology, the Sand Hills are distinct geographically. Much of the sand was blown into dunes during the Miocene, although weathered clays and very old river deposits lie directly on the crystalline rocks of the Piedmont (Kovacik and Winberry 1987; Murphy 1995).

Clarendon County is situated in the south-central part of South Carolina. It is bounded to the north by Sumter County, to the northeast by Florence County, to the east by

Williamsburg County, and to the south by Orangeburg and Berkeley Counties. A small portion of Calhoun County borders to the west. Lake Marion forms the border between Clarendon and Orangeburg Counties, which was created in the 1930s from damming the Santee River.

Several drainages flow through the corridor, including Jacks Creek, which flows into Lake Marion.

Climate

This portion of South Carolina is dominated by the movement of weather systems across the country, but there are relatively few complete exchanges of air masses in the summer. This results in few breaks in the midsummer heat, with temperatures ranging from the high 80s to the low 90s. In contrast, winters are mild and relatively short. There are 48 inches of annual precipitation, with August producing the most precipitation for the year (Gerald 1972).



Figure 3. View of wetland found in the project area.



Figure 4. View of planted field along the corridor.

Mills distinguishes between the swamp lands and the sand lands in his assessment of nearby Orangeburg's health, which has similar conditions to Clarendon. He says:

the sandhill section of this district presents as fine and healthy a climate as any country can boast of. Diseases are rare here Along the margins of the creeks and rivers, and within the influence of swamps, bays, and stagmamt ponds, fevers and agues, bilious remittents, typhus, and other inflammatory diseases prevail (Mills 1972 [1826]:664).

Soils

Mills commented that the nearby Orangeburg District included a variety of soils. Most were described as having "a light, sandy nature, thin soil, but bottomed on clay" (Mills 1972 [1826]:658). This clay bottom helps minimize the droughty nature of the sandy soils. Along the Congaree and Santee rivers he observed a very different soil, described as "a stiff, red clay" found

on rolling hills - a description of a small area of the piedmont which is today part of Calhoun County to the west.

Today we recognize that most of the survey corridor consists of soils characteristic of the Persanti-Cantey-Red Bay association. These soils are generally moderately well drained and poorly drained soils that have a loamy surface layer and clayey subsoil.

However, the northern portion of the corridor is better associated with the Dothan-Lynchburg-Rains association that has well drained and somewhat poorly drained soils with sandy surface layers and loamy subsoils (Gerald 1972).

The proposed transmission corridor crosses 13 different soils, with most (Marlboro, Fuquay, Faceville, Dothan, Red Bay, and Orangeburg) being well drained. However, three soils (Persanti, Clarendon, and Ocilla) are moderately well drained and four soils (Lynchburg, Paxville, Cantey and Osier) range from somewhat to very poorly drained.

Of the well-drained soils, Marlboro has an Ap horizon of dark grayish brown (10YR4/2) loamy sand to 0.8 foot over a strong brown (7.5YR5/8) sandy clay to 1.6 feet in depth. Fuquay soils have an Ap horizon of dark grayish brown (10YR4/2) fine sandy to a depth of 0.6 foot over a pale brown (10YR6/3) fine sand to 2.3 feet in depth. The Faceville Series has an Ap horizon of brown (20YR4/3) loamy sand to a depth of 0.8 foot over a yellowish red (5YR4/8) sandy clay loam to a depth of 1.2 feet. Dothan soils have an Ap horizon of grayish brown (10YR5/2) loamy

fine sand to 0.6 foot in depth over a very pale brown (10YR7/4) loamy fine sand to 1.3 feet in depth. Red Bay soils have an Ap horizon of dark reddish brown (5YR3/2) sandy loam to 0.6 foot in depth over a dark reddish brown (2.5YR3/4) sandy clay loam to a depth of 1.3 feet. The Orangeburg Series of soils has an Ap horizon of brown (10YR4/3) loamy sand to 0.8 foot in depth over a yellowish red (5YR4/8) sandy loam to 1.3 feet in depth.

Of the moderately well-drained soils, the Persanti Series has an A horizon of dark gray (10YR4/1) very fine sandy loam to a depth of 0.5 foot over a brownish yellow (10YR6/6) clay to a depth of 1.4 feet. Clarendon soils have an Ap horizon of dark grayish brown (10YR4/2) loamy sand to 0.7 foot over a pale brown (10YR6/3) loamy sand to 1.3 feet in depth. Ocilla soils have an A horizon of very dark grayish brown (10YR3/2) loamy sand to 0.7 foot in depth over a pale brown (10YR6/3) loamy sand to almost 2.0 feet in depth.

The more poorly drained soils include the Lynchburg Series, which has an Ap horizon of very dark grayish brown (10YR3/2) loamy sand to 0.8 foot in depth over a pale brown (10YR6/3) sandy loam to 1.3 feet in depth. Paxville soils have an Ap horizon of black (10YR2/1) loam to a depth of 0.8 foot over a black (10YR2/1) fine sandy loam to 1.3 feet in depth. In the survey area, this soil is primarily found around Jacks Creek. Cantey soils have an A horizon of dark gray (10YR4/1) loam to 0.5 foot in depth over gray (10YR6/1) clay to 1.5 feet in depth. The Osier Series has an A horizon of very dark gray (10YR3/1) loamy fine sand to 0.4 foot over a mottled grayish brown (10YR5/2) and light gray (10YR7/1) fine sand to 1.3 feet in depth.

Floristics

In the early nineteenth century Mills comments that the river lands were dominated by “the magnolia, beech, willow, ash, elm, oak, birch, walnut, and hickory” while the deeper swamp were “large groups of cypress, loblolly, bay, sweet bay, maple, tupelo, and poplar trees of an

immense height and circumference” (Mills 1972[1826]:658).

The survey corridor covers a variety of different systems including mixed pine and hardwood forest, planted pines, wetlands with hardwoods, and planted fields.

PREHISTORIC AND HISTORIC SYNOPSIS

Previous Research

Clarendon County has received very little archaeological attention, with Derting et al. (1991) citing only 26 different studies. Most of the studies appear to be compliance reports. However, a few of the reports are from Leland Ferguson's (1973) work at the nearby Santee Indian Mound/Fort Watson.

More recently, and within 0.5 mile of the current survey corridor, is a portion of a 2002 survey for the Santee Cooper Hydroelectric Project (Bailey 2002). No sites were found in the portion of this survey closest to the survey corridor.

Prehistoric Overview

The Paleo-Indian period, lasting from 12,000 to 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977). The Paleo-Indian occupation, while widespread, does not appear to have been intensive. Points usually associated with this period include the Clovis and several variants, Suwannee, Simpson, and Dalton (Goodyear et al. 1989:36-38).

At least one Paleo-Indian point has been found in the nearby Calhoun area, reportedly from the Little Bull Swamp Creek drainage (Goodyear et al. 1989:33). This pattern of artifacts found along major river drainages has been interpreted by Michie to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna" (Michie 1977:124).

Unfortunately, little is known about Paleo-Indian subsistence strategies, settlement systems, or social organization. Generally, archaeologists agree that the Paleo-Indian groups were at a band

level of society, were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

The Archaic period, which dates from 8000 to 1000 B.C., does not form a sharp break with the Paleo-Indian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. The chronology established by Coe (1964) for the North Carolina Piedmont may be applied with little modification to the Clarendon County area. Archaic period assemblages, characterized by corner-notched, side-notched, and broad stemmed projectile points, are common in the vicinity, although they rarely are found in good, well-preserved contexts.

The Woodland period begins, by definition, with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast, about 1000 B.C. in the Upper Coastal Plain, and much later in the Carolina Piedmont, perhaps 500 B.C. It should be noted that many researchers call the period from about 2500 to 1000 B.C. the Late Archaic because of a perceived continuation of the Archaic lifestyle in spite of the manufacture of pottery. Regardless of terminology, the period from 2000 to 500 B.C. was a period of tremendous change.

The subsistence economy during this early period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish. Various calculations of the probable yield of deer, fish, and other food sources identified from some coastal

			Regional Phases		
Dates	Period	Sub-Period	COASTAL	MIDDLE SAVANNAH VALLEY	CENTRAL CAROLINA PIEDMONT
1715	HIST.	EARLY	Altamaha		Caraway
1650		LATE	Irene / Pee Dee	Rembert Hollywood	Dan River
1100	MISS.	EARLY	Savannah	Lawton Savannah	Pee Dee
800		LATE	St. Catherines / Swift Creek		Uwharrie
A.D.		MIDDLE	Wilmington	Sand Tempered Wilmington?	
B.C.			Deptford	Deptford	Yadkin
300	WOODLAND				
		EARLY	Refuge		Badin
1000	ARCHAIC			Thom's Creek Stallings	
2000		LATE		Savannah River Halifax	
3000					
5000	PALEOINDIAN	MIDDLE		Guilford Morrow Mountain Stanly	
8000		EARLY		Kirk Palmer	
10,000				Hardaway	
12,000			Cumberland	Clovis	Simpson

Figure 5. Generalized cultural sequence for South Carolina.

sites indicate that sedentary life was not only possible, but probable. Further inland it seems likely that many Native American groups continued the previous established patterns of band mobility. These frequent moves would allow the groups to take advantage of various seasonal resources, such as shad and sturgeon in the spring, nut masts in the fall, and turkeys during the winter.

The South Appalachian Mississippian period, from about A.D. 1100 to A.D. 1640 is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease. The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers. The earliest coastal phases are named the Savannah

and Irene (known as Pee Dee further inland) (A.D. 1200 to 1550).

However little we know about the various small coastal tribes, considerably less is known about the protohistoric and historic tribes in the Upper Coastal Plain. The study area is, in very general terms, situated between the Pocatoligo and Santee. Mooney (1894:80) devotes a modest few paragraphs to the Santee.

For the Santee we know that Lawson found them in the vicinity of the Santee Indian mounds in 1701 (Lefler 1967:25-29; Mooney 1894:79). The tribe is reported to live in small hamlets, with Lawson remarking, "there being Plantations lying scattering here and there, for a great many Miles" (Lefler 1967:25). In fact, the settlements continued up river at least to Jacks Creek, and there were hunting camps at least as far up as the High Hills of Santee (Hicks 1998:30).

Mooney reports that just prior to the Yemassee War there were still two village about 70 miles from Charleston and perhaps as many as 160 individuals (Mooney 1894:80). Taukchiray provides a little more detail, revealing that the remains of the tribe were captured by the English and Etiwan Indians and transported to Charleston. There the men were shipped to the West Indies as slaves and the women and children were turned over the Etiwans as slaves (Hicks 1998:30), marking the end of the tribe.

Historic Overview

The area, which is today Clarendon County, was primarily occupied by the Santee and Wateree Indians, with the earliest accounts taken from Spanish explorers in 1526 (Quattlebaum 1956). During the Yemassee War of 1715 both the Wateree and Santee joined the Indian uprising, only to have their power broken. Afterwards the remnants apparently joined together, possibly with the Catawba (Swanton 1946). Gregorie (1954:7) mentions that Sumter County, to the north, remained part of the Catawba hunting territory at least as late as 1748, with a camp

existing near "The Raft" in the Wateree River Swamp until 1750. Mills, in the early nineteenth century, expressed the situation concisely:

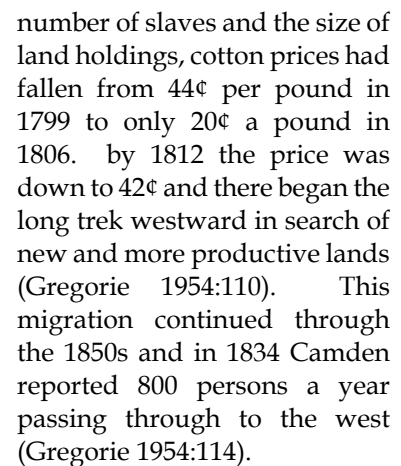
[a] number of tribes of Indians inhabited this country originally; but little care has been taken to preserve either their names or locations (Mills 1972 [1826]:749).

The area saw some action during the American Revolution, especially at the nearby Santee Indian Mound, which became the outpost, Fort Watson. The British Army built the fort on top of the mound, which overlooked the Santee River. After one successful defense by the British, the Americans eventually caused the surrender of the British by building a tower high enough to fire at the fort ("Santee Indian Mound and Fort Watson" pamphlet from October 2002 by the Fish and Wildlife Service and the National Wildlife Refuge System).

During the late eighteenth century, Clarendon went through a series of administrative boundary changes. In 1785 Clarendon was created in the Camden District while in 1792 parts of Clarendon were lost to the now extinct Salem District (Long 1997). By 1800, Clarendon was part of the Sumter District and remained unchanged until 1857.

These legal changes did little to alter the basic framework of frontier life. Perhaps the most significant political and economic event, which brought about the creation of counties, was the Revolutionary War. In addition to the administrative changes, the bounty for indigo was no longer available and production of this once prosperous crop ceased (Gregorie 1954:56). The search for a new cash crop led to cotton, which was introduced about 1785, although it was not until the 1793 invention of the cotton gin that the crop became common (Burke et al. 1943:6).

By the turn of the century green seed cotton was being commonly planted. Gregorie notes that:



In Mills 1826 map of the Sumter District (Figure 6), the project area runs partially along Jacks Creek. Such names as Gales, Ragin, and Dennis are known are an unnamed plantation along Jacks Creek.

As previously mentioned, by 1857, Clarendon once again changed its boundaries, becoming known as the Clarendon District. By 1868 the District was known as Clarendon County.

The importance of logging increased, becoming one of the largest industries in Clarendon County. In 1884, Thomas Wilson started Santee River Logging based out of Wilson's Mill (Fetters 1990). He eventually added a spur from the existing Charleston, Sumter & Northern line that ran to Coskereys (now known as St. Paul). This line ran both logging and carrier trains, and appears to be the part of the old railroad grade that crosses the project corridor on modern topographic maps (see Figure 2) (Fetters 1990).

Competition between the different rail lines caused the Atlantic Coast Line (ACL) to purchase parts of the Charleston, Sumter & Northern Railroad (including a section through St. Paul) (Fetters 1990). This section of tracts was then sold to the Wilson & Summerton line. Portions of the line were then removed to prevent the trains

In spite of the sudden increase in the

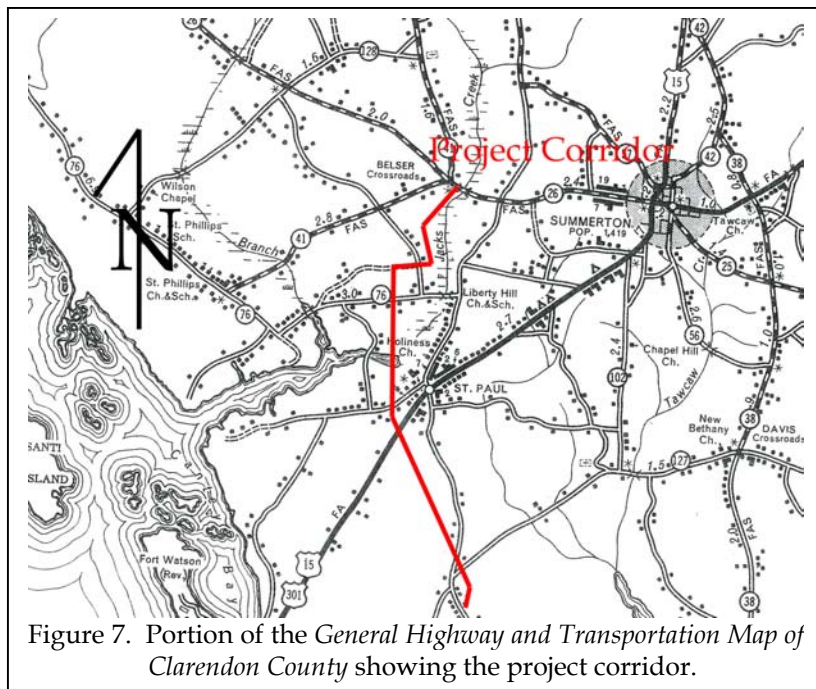


Figure 7. Portion of the *General Highway and Transportation Map of Clarendon County* showing the project corridor.

movement on the tracts (Fetters 1990).

One of the largest logging operations in South Carolina was the Brooklyn Cooperage Company, based out of Sumter (Fetters 1990). The company was established in the 1850s with plants in Brooklyn, Boston, Philadelphia, and New Orleans (Fetters 1990:111). In 1927 the company bought land near St. Paul and started an operation in Sumter. The operation near St. Paul lasted from 1928 to 1934. The Brooklyn Cooperage Mill replaced the tracts once belonging to the Charleston, Sumter & Northern Railroad. The mill then moved to Rimini, then to Williamsburg County, where it remained until 1947.

The 1950 *General Highway and Transportation Map of Clarendon County* (Figure 7) shows several structures in the vicinity of the transmission corridor. None of these structures, however, were encountered during the survey.

METHODS

Archaeological Field Methods

The initially proposed field techniques involved the placement of shovel tests at 100-foot intervals along the center line of the corridor which has a 75-foot right-of-way.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially from the southern portion of the corridor, heading northeast. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1.0 foot or until subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

Should sites (defined by the presence of three or more artifacts from either surface survey or shovel tests within a 50 feet area) be identified, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 to 50 feet intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field

investigators.

These proposed techniques were implemented with no significant modifications.

The GPS positions were taken with a Garmin GPS 76 rover that tracks up to twelve satellites, each with a separate channel that is continuously being read. The benefit of parallel channel receivers is their improved sensitivity and ability to obtain and hold a satellite lock in difficult situations, such as in forests or urban environments where signal obstruction is a frequent problem. This was a vital concern for the study area.

GPS accuracy is generally affected by a number of sources of potential error, including errors with satellite clocks, multipathing, and selective availability. Satellite clock errors can occur when the satellites' clock is off by as little as a millisecond, or when a slightly askew orbit



Figure 8. View of the existing Prince Substation to the south.



Figure 9. View of existing transmission line next to the current project corridor.

results in a distance error. Multipathing occurs when the signal bounces off trees, chain-link fences, or bodies of water. Multipathing was probably not a significant source of error for this study since the site area was not too obstructed and our reading was taken in the center of the site. The source of most extreme GPS errors is selective availability (SA), the deliberate mistiming of satellite signals by the Department of Defense. This degradation results in horizontal errors of up to 100 m 95% of the time, although the error may be as much as 300 m. Nevertheless, selective availability has been turned off by the DOD. We have previously determined the 3D¹ and DGPS readings with the Garmin 76 were identical. Therefore, we relied on 3D navigation mode, with expected potential horizontal errors of 6 m or less.

Architectural Survey

As previously discussed, we elected to use

¹A basic requirement for GPS position accuracy is having a lock on at least four satellites, which places the receiver in 3D mode. This is critical B as an example, positions calculated with less than four satellites can have horizontal errors in excess of a mile, or over 1,600 m.

a 0.5 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects which appeared to have been constructed before 1950. Typical of such projects, this survey would record only those which has retained "some measure of its historic integrity" (Vivian n.d.:5) and which were visible from public roads.

For each identified resource we would complete a Statewide Survey Site Form and at least two representative photographs would be

taken. Permanent control numbers would be assigned by the Survey Staff of the S.C. Department of Archives and History at the conclusion of the study. The Site Forms for the resources identified during this study would be submitted to the S.C. Department of Archives and History.

Site Evaluation

Archaeological sites will be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

the quality of significance in American history, architecture, archaeology, engineering, and

culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

a. that are associated with events that have made a significant contribution to the broad patterns of our history; or

b. that are associated with the lives of persons significant in our past; or

c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
- identification of the historic context applicable to the site,

providing a framework for the evaluative process;

- identification of the important research questions the site might be able to address, given the data sets and the context;
- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and
- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on an archaeological site's ability to address significant research topics within the context of its available data sets.

For architectural sites the evaluative process was somewhat different. Given the relatively limited architectural data available for most of the properties, we focus on evaluating these sites using National Register Criterion C, looking at the site's "distinctive characteristics." Key to this concept is the issue of integrity. This means that the property needs to have retained, essentially intact, its physical identity from the historic period.

Particular attention would be given to the integrity of design, workmanship, and materials. Design includes the organization of space, proportion, scale, technology, ornamentation, and materials. As *National Register Bulletin 36* observes,

"Recognizability of a property, or the ability of a property to convey its significance, depends largely upon the degree to which the design of the property is intact" (Townsend et al. 1993:18). Workmanship is evidence of the artisan's labor and skill and can apply to either the entire property or to specific features of the property. Finally, materials -- the physical items used on and in the property -- are "of paramount importance under Criterion C" (Townsend et al. 1993:19). Integrity here is reflected by maintenance of the original material and avoidance of replacement materials.

Laboratory Analysis

The cleaning and analysis of artifacts was conducted in Columbia at the Chicora Foundation laboratories. These materials have been catalogued and accessioned for curation at the South Carolina Institute of Archaeology and Anthropology, the closest regional repository. The site form for the identified archaeological site has been filed with the South Carolina Institute of Archaeology and Anthropology. Field notes have been prepared for curation using archival standards and will be transferred to that agency as soon as the project is complete.

Analysis of the collections followed professionally accepted standard with a level of intensity suitable to the quantity and quality of the remains. In general, the temporal, cultural, and typological classifications of historic remains follow such authors as Price (1979) and South (1977).

RESULTS OF SURVEY

Introduction

As a result of this cultural resources survey, one site, 38CR129, a late nineteenth to early twentieth century scatter, was identified (Figure 10). The site is recommended not eligible for the National Register for its limited ability to address significant research questions and lack of integrity.

The architectural survey failed to identify any structures that would be potentially eligible for the National Register of Historic Places.

Archaeological Resource

38CR129

Site 38CR129 is a surface and subsurface scatter of late nineteenth to early twentieth century artifacts located on a ridge top at an elevation of 125 feet AMSL (Figure 11). Vegetation in the area consists of mixed pines and hardwoods and dense underbrush. A UTM coordinate for the site is 555842E 3718401N (NAD27 datum).

Shovel tests were completed on the corridor at 100-foot intervals with the shovel test at Station 24+00 (400R300) positive. Additional shovel testing began at 25-foot and 50 foot intervals along the corridor and beyond the 75-foot right-of-way until two consecutive negative tests were encountered.

A total of 35 shovel

tests were excavated with nine positive (26%). The artifacts were found in the upper 0.6 foot of soil with shovel test profiles producing soils resembling Fuquay fine sands. These soils have an Ap horizon of dark grayish brown (10YR4/2) fine sandy to a depth of 0.6 foot over a pale brown (10YR6/3) fine sand to 2.3 feet in depth.

The site area, measuring approximately 150 by 50 feet, includes mostly artifacts from the Kitchen and Architectural Groups (Table 1). The remains date from the late nineteenth to the early twentieth century. Manganese glass, for example, was popular in the late nineteenth century (Jones and Sullivan 1985:13) along with wire cut nails, which were also used in bulk starting in the late nineteenth century (Howard 1989:55). On the other hand, tinted whiteware did not start being produced until 1911.

Although datable remains are present, there is little else we can learn from this site. No

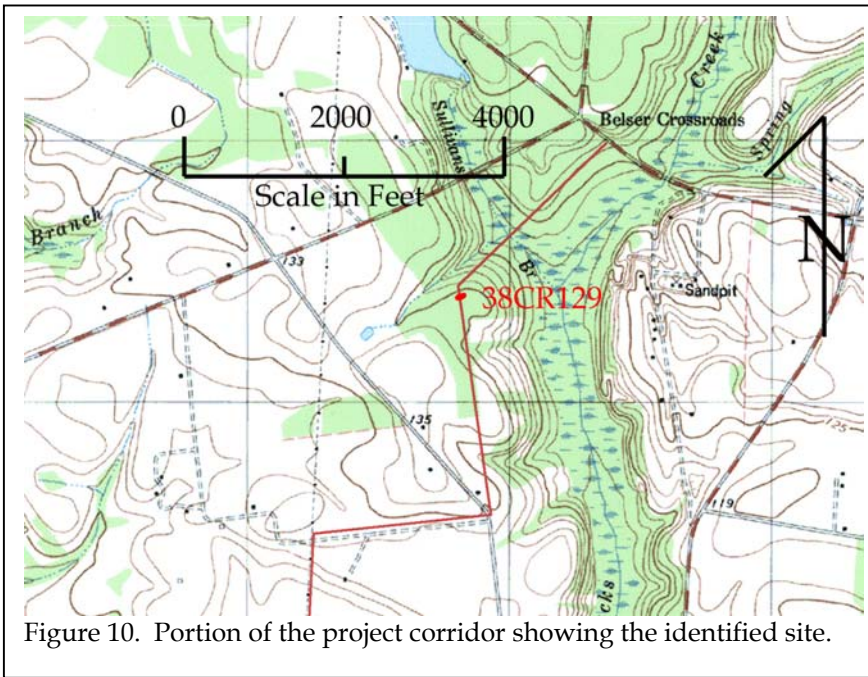


Figure 10. Portion of the project corridor showing the identified site.

features, such as brick foundations or identifiable wells, were found and no intact clusters of artifacts were found. All the artifacts were found in the plow zone with many artifacts scattered on the surface. Intensive logging did occur in the area, which may explain the dispersal of artifacts. In addition, no distinct faunal or bioanthropological materials were found, which may yield information on diet. With very few brick remains, little can be learned about the original structure.

An examination of the 1950 *Clarendon*

County General Highway and Transportation Map (see Figure 7) does not show a structure, but this is not unusual given that most of the recorded structures are along the main roads.

Given the lack of integrity through possible logging and the inability to address significant research questions, this site is recommended not eligible for the National Register of Historic Places. No additional management is needed pending the review and concurrence of the State Historic Preservation Office.

Historic and Architectural Resources

As previously discussed, there are no previously recorded National Register buildings, districts, structures, sites, or objects in the study area. A drive of the 0.5 mile APE confirmed these findings.

The project corridor does, however, cross an old railroad corridor. No evidence of ties or other materials remain. The corridor has been turned into a dirt road and lacks the distinction that a rail line would exhibit. Ditches barely remain along the sides of the corridor and no real elevation is apparent. We walked about 400 feet of the line and noticed some areas with sparse gravel, but

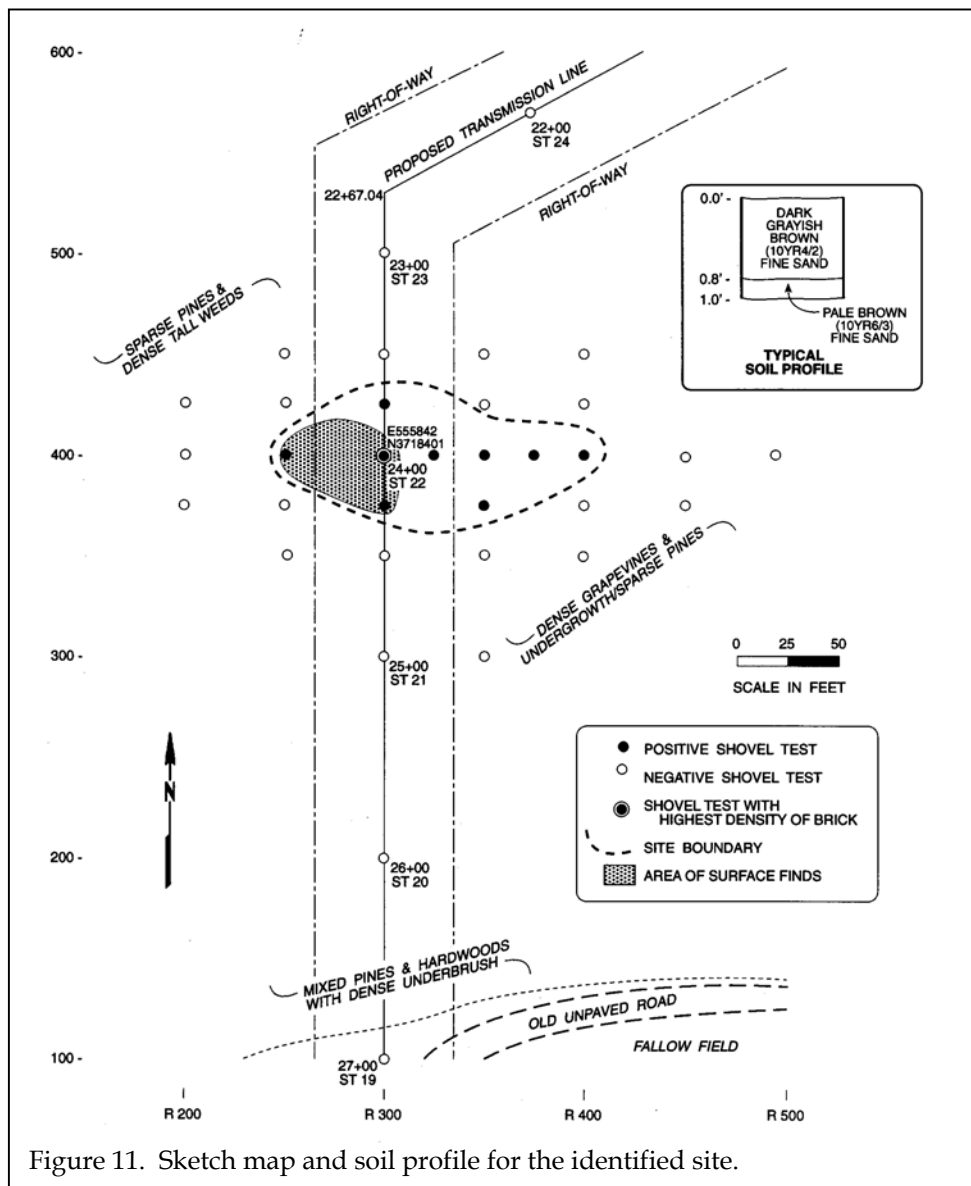


Figure 11. Sketch map and soil profile for the identified site.

RESULTS OF SURVEY

none were left in the 75-foot right-of-way of the corridor.

This railroad line (its history is discussed in the historical synopsis of this report) does not retain integrity. The current grade is indistinguishable from a dirt road and no longer possesses the design, setting, materials, workmanship, feeling, or association of the original rail line. Only the original location is still present and this is insufficient to document eligibility. Consequently, this railroad grade is recommended not eligible for the National Register.

Table 1. Artifacts from the site									
	375 R300	375 R350	400 R250	400 R300	400 R325	400 R350	400 R400	425 R300	Surface Total
Kitchen Group									
Whiteware, undecorated						2		2	7
Whiteware, yellow tint									2
Porcelain, undecorated									1
Glass, clear				1	1	2	1	2	1
Glass, clear bottle lip						1			
Glass, aqua	1		1			1		3	4
Glass, manganese		2				1		1	3
Glass, brown						1			
Glass, milk								3	1
Glass, melted								1	
Architectural Group									
Nails, wire				3					
Porcelain door knob									1
Other									
UID Metal			1						
Bone								1	
Total									52



Figure 12. View of shovel testing in the site area.



Figure 13. View of railroad grade.

CONCLUSIONS

This study involved the examination of a 5.7-mile corridor for the Prince to Lake Marion Transmission Line. The project area is located in the western portion of Clarendon County. This work, conducted for Central Electric Power Cooperative, examined archaeological sites and cultural resources found on the proposed project corridor and is intended to assist the company in complying with their historic preservation responsibilities.

As a result of this investigation, 38CR129, was uncovered. The site is a late nineteenth to early twentieth century scatter that is recommended not eligible for the National Register for its inability to address significant research questions and lack of integrity.

A survey of historic sites was conducted

within a 0.5 mile APE. No structures were found that would warrant a National Register of Historic Places nomination.

It is possible that archaeological remains may be encountered during construction activities. As always, contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

CONCLUSIONS

SOURCES CITED

- Bailey, Ralph
2002 *Cultural Resources Survey of the Santee Cooper Hydroelectric Project*. Brockington and Associates. Washington, D.C.
- Burke, T.T., W.D. Lee, and C.S. Basalik
1943 *Soil Survey of Sumter County, South Carolina*. U.S. Department of Agriculture, Bureau of Plant Industry, Washington, D.C.
- Coe, Joffre L.
1964 *The Formative Cultures of the Carolina Piedmont*. Transactions of the American Philosophical Society 54(5).
- Derting, Keith M., Sharon L. Pehrul, and Charles J. Rinehart
1991 *A Comprehensive Bibliography of South Carolina Archaeology*. Research Manuscript 211. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.
- Ferguson, Leland G.
1973 *Exploratory Archeology at the Scott's Lake Site (38CR1), Santee Indian Mound-Ft. Watson, Summer 1972*. Research Manuscript Series 36. S.C. Institute of Archaeology and Anthropology, Columbia.
- Fetters, Thomas
1990 *Logging Railroads of South Carolina*. Heimburger House Publishing Co., Illinois.
- Gerald, Talbert R.
1972 *Soil Survey of Clarendon County, South Carolina*. U.S.D.A., Washington, D.C.
- Goodyear, Albert C., III, James L. Michie, and Tommy Charles
1989 *The Earliest South Carolinians*. In *Studies in South Carolina Archaeology*, edited by Albert C. Goodyear, III and Glen T. Hanson, pp. 19-52. S.C. Institute of Archaeology and Anthropology, University of S.C., Columbia.
- Gregorie, Anee King
1954 *History of Sumter County, South Carolina*. Library Board of Sumter County, Sumter, South Carolina.
- Hicks, Theresa M., editor
1998 *South Carolina Indians, Indian Traders and Other Ethnic Connections Beginning in 1670*. The Reprint Company, Spartanburg, South Carolina.
- Howard, Hugh
1989 *How Old is This House?* The Noonday Press, New York.
- Jones, Olive R. and Catherine Sullivan
1985 *The Parks Canada Glass Glossary for the Description of Containers, Tableware, Flat Glass, and Closures*. National Historic Parks and Sites Branch, Parks Canada, Quebec.
- Kovacik, Charles F. and John J. Winberry
1987 *South Carolina: The Making of a Landscape*. University of South Carolina Press, Columbia.

- Lefler, Hugh T., editor
 1967 *A New Voyage to Carolina*. University of North Carolina Press, Chapel Hill.
- Long, John H., editor
 1997 *South Carolina Atlas of Historical County Boundaries*. Charles Scribner's Sons, New York.
- Michie, James
 1977 The Late Pleistocene Human Occupation of South Carolina. Unpublished Honor's Thesis, Department of Anthropology, University of South Carolina, Columbia.
- Mills, Robert
 1972[1826] *Statistics of South Carolina*. Hurlbut and Lloyd, Charleston, South Carolina. 1972 facsimile ed. The Reprint Company, Spartanburg, South Carolina.
- Mooney, James
 1894 *The Siouan Tribes of the East*. Bulletin 22. Bureau of American Ethnology, Washington, D.C.
- Murphy, Carolyn Hanna
 1995 *Carolina Rocks: The Geology of South Carolina*. Sandlapper Publishing, Orangeburg, South Carolina.
- Price, Cynthia
 1979 *19th Century Ceramics in the Eastern Ozark Boarder Region*. Monograph Series 1. Center of Archaeological Research, Southwest Missouri University, Springfield.
- Quattlebaum, Paul
 1956 *The Land Called Chicora*. University of Florida Press, Gainesville.
- South, Stanley A.
 1977 *Method and Theory in Historical Archaeology*. Academic Press, New York.
- Swanton, John R.
 1946 *Indians of the Southeastern United States*. Bulletin 137. Smithsonian Institution, Bureau of American Ethnology, Washington, D.C.
- Townsend, Jan, John H. Sprinkle, Jr., and John Knoerl
 1993 *Guidelines for Evaluating and Registering Historical Archaeological Sites and Districts*. Bulletin 36. National Park Service, National Register of Historic Places, Washington, D.C.
- Vivian, Daniel J.
 n.d. *South Carolina Statewide Survey of Historic Properties*. State Historic Preservation Office, Columbia.
- Walthall, John A.
 1980 *Prehistoric Indians of the Southeast: Archaeology of Alabama*. University of Alabama Press.

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